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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/325,819	06/04/1999	MAKOTO YAMAMORI	85765-000000	3326

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EXAMINER

GRUNBERG, ANNE MARIE

ART UNIT

PAPER NUMBER

1661

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/325,819

Applicant(s)

YAMAMORI, MAKOTO

Examiner

Anne Marie Grunberg

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b)

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____
- Applicant No(s)/Mail Date _____

DETAILED ACTION

Claims 1-5 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The deposit information has been received. Although the accession numbers are included in the declaration, Applicant is reminded to amend the specification to include the date of deposit and deposit numbers. MPEP 2411.05

Claim Rejections

Written Description

1. Claims 1-4 remain rejected under 35 U.S.C. 112, first paragraph for the reasons set forth in the previous office action.

Applicant argues that the present application describes the relevant characteristics of the claimed invention, including a correlation between structure to function. Applicant further argues that the application sets forth a number of ways by which plants modified to lack SGP-1 can be created. Applicant also argues that plants lacking such enzymes would be readily identifiable and that those of skill in the art would readily understand that the inventors had full possession of the full scope of the claimed invention. Applicant also asserts that the written description requirement has been met as all that is necessary to describe the claimed genus are starch, wheat, SGP-1 and amylose.

These arguments have been carefully considered however are not persuasive for the following reasons. The Examiner does not agree that the only parts of the plant that

need to be described are the starch, the wheat, SGP-1 and the amylose. Although this may conceivably be enough to show support for a method of making this wheat, it is not enough to support a product claim in which a broad genus is claimed. Even if such claimed plants could be readily identified by one of skill in the art, that is not the standard under written description. In analyzing whether the written description requirement is met for genus claims, it is first determined whether a representative number of species have been described by their complete structure. This is not the case in the present application with the claims as presently written.

2. Claims 1-4 remain rejected under 35 U.S.C. 112, first paragraph, for the reasons set forth in the last office action and for the reasons below.

Applicant argues that a deposit has been made of the four wheat varieties. Applicant further argues that the Examiner has presented no reason to explain why undue experimentation is required to practice the claimed invention and that the application teaches that any method that results in a wheat plant lacking SGP-1 can be used to make the claimed starch.

Due to genotypic variance, dominance deviations, epistatic interactions and factors affecting heredity, the genetic variances must be experimentally determined. Fehr describes some of the unpredictability in such situations and on pages 86-94 describes a diallel design to evaluate such unpredictable components between pairwise matings.

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Given the claim breadth, unpredictability as cited by Fehr and as defined in MPEP 2164.03 and lack of guidance as discussed previously, undue experimentation would have been required by one skilled in the art to produce starch from any wheat seed other than the seed produced by crossing Chousen 30 or Chousen 57, Turkey 116, and Kanto 79.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zallie et al.

Claims 1-5 are drawn to a wheat starch with an amylose content greater than 35% or 40%.

Zallie et al teach a method of making a wheat starch with an apparent amylose content of at least 40% (column 5, lines 20-68, for example). Such a wheat starch is taught at column 18, line 50, for example. The claims do not state characteristics of the resultant wheat starch that would make the starch obtained from endosperm of a seed of wheat modified to lack the starch granule protein-1 indistinguishable from any high amylose wheat starch, such as the prior art starch, despite their being made by an alternative process. See In re Thorpe, 227 USPQ 964,966 (fed. Cir. 1985), which teaches that a product-by-process claim may be properly rejectable over prior art teaching the same product produced by a different process, if the process of making the product fails to distinguish the two products. Thus, the claimed invention was clearly prima facie obvious as a whole to one of ordinary skill in the art, if not anticipated by Zallie et al.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie Grünberg whose telephone number is (571) 272-0975. The examiner can normally be reached from Monday through Thursday from 7:30 until 5:00, and every other Friday from 7:30 until 4:00.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached at (571) 272-0974. The fax number for the unit is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.


ANNE MARIE GRUNBERG
PRIMARY EXAMINER